

Newman Elementary School Renovation Plan

Needham School Committee
October 6, 2009



Project Background

- **December 2007** Significant indoor air quality problems result in the closure of certain spaces and classrooms; students and staff affected.
- **May 2008** SEi Engineering concluded that the 47-year old underground duct system in the east wing had exceeded its safe and useful life and was deteriorating: dirt and particulate matter was leaking into the duct system, which was being blown into occupied areas. Recommends entire system be abandoned and replaced. Estimated cost of HV system only: \$15.5 - \$20.5 million.
- **May 2008** Special Town Meeting appropriated \$650,000 to install a replacement heating/ventilation system and to develop a feasibility study of long-term solutions.
- **August 2008** Temporary HV system installed.
- **December 2008** DRA feasibility study confirms the building envelope is sound, but that the HVAC system must be replaced.

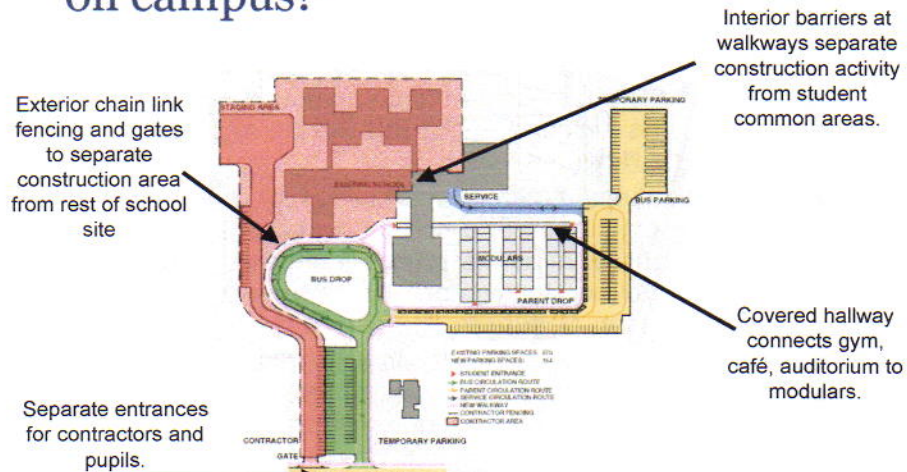
Project Background

- **February 2009** Massachusetts School Building Authority placed Newman School on their Repair List for consideration: up to 40% eligible costs could be funded by MSBA.
- **May 2009** Special Town Meeting approved \$450,000 to develop schematic design and estimate project costs.
- **September 2009** DRA estimates total cost at \$27.4 million
- **September 2009** MSBA approves 40% reimbursement of eligible costs: \$8.6 million; excludes modulars and miscellaneous expenses.
- **October 2009** School Committee votes to determine project scope and request an override for the community to consider on December 8, 2009.

Project Scope and Plan

- Install energy efficient & gas-fired rooftop HVAC units
- Install necessary interior ductwork
- Replace roof
- Install required code work: ADA, fire suppression, and seismic upgrades
- Relocate students to on site modular classrooms
- Renovate core areas that will be opened and accessible while HVAC work is underway

How will construction safely be done on campus?



Why replace temporary HV system?

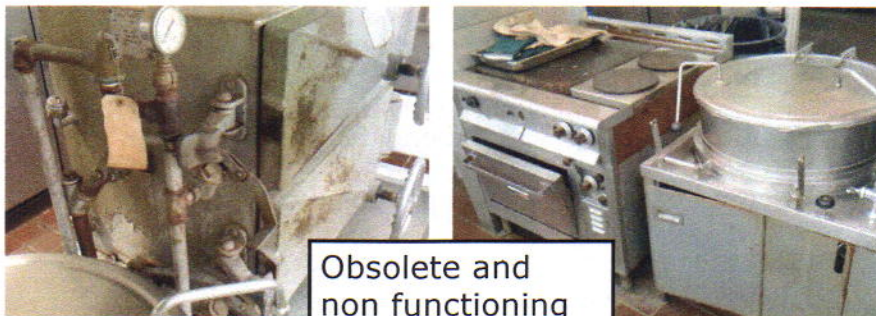
- Temporary ductwork not meant for long-term use.
- Temporary HV system lacks sufficient capacity and controls to adjust temperature.
- Temporary system is energy inefficient and costly to operate: Increased fuel needs and intensive building maintenance requirements (additional staff needed to maintain system).
- Temporary system installed only in east wing; most classrooms operate with the original and failing HV system.
- Underground fuel tank must be replaced (permanent solution required).
- MSBA will not participate in the reimbursement of a temporary solution.

What code upgrades are necessary?

- **ADA** The Americans with Disability Act (ADA) requires certain handicapped accessible components (e.g., bathrooms) be included in the renovation of older buildings like Newman.
- **Fire Safety** Local building and fire safety officials require the installation of a fire suppression system (sprinklers) throughout the school while the HVAC system is installed, consistent with all municipal and school projects in Needham.
- **Seismic** The state building code also requires that structural improvements be made to ensure the building can withstand the effects of an earthquake.

What other renovations will extend the useful life of the building?

- **Kitchen** reconfiguration to facilitate efficient food prep and student flow; replace outdated equipment.



Obsolete and non functioning equipment

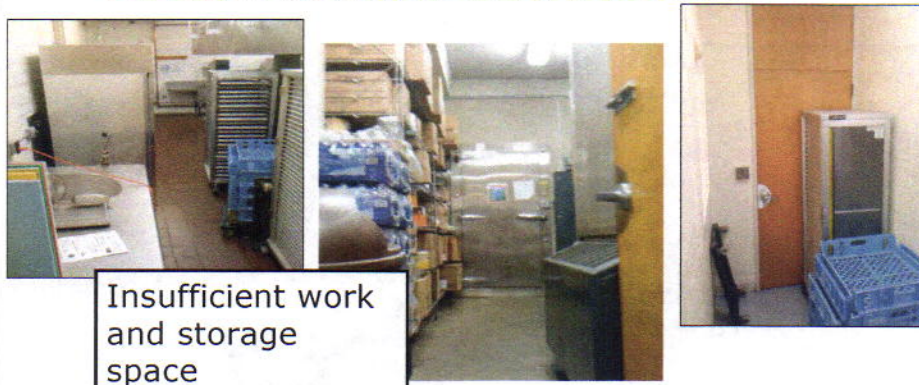
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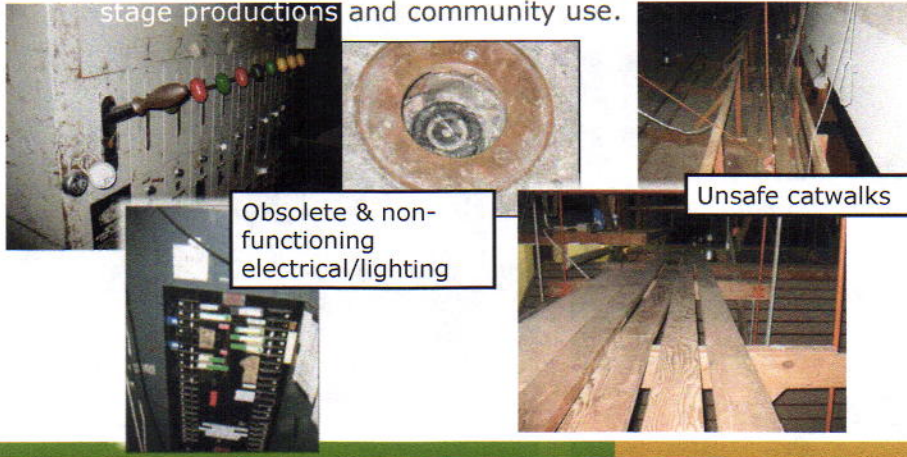
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- **Auditorium** upgrade of sound/lighting systems for stage productions and community use.



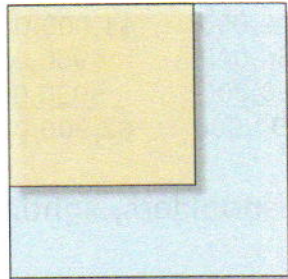
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- **Nurse/Guidance/Office** Reconfiguration of offices to provide privacy for exams, additional workspace.



What other renovations will extend the useful life of the building?

- **Nurse/Guidance/Office** Without repairs and renovations, Newman has much less space for staff, students, and parents:



 **Eliot** School Nurse/Office
Space **3,500 square feet**
for 403 students

 **Newman** School Nurse/Office
Space **2,000 square feet** for
763 students

Why Upgrade Other Systems Now?

- Upgrades on Town's capital plan for improvements.
- HV system repairs take us "halfway there": electrical/mechanical system repairs affect kitchen, technology infrastructure, sound and lighting systems; upgrades will extend useful life of these systems for next generations of students.
- Deferring the upgrades to a later date will increase the overall cost of the work, both because of inflation, and the need to re-work HVAC, sprinklers, lighting and ceilings.
- MSBA agrees with upgrades and supports partial reimbursement for work done now, but not later.
- Add functionality and efficiency to these systems.

If Upgrades Deferred 5 Years:

- No MSBA reimbursement
- Cost of Upgrades Increases:

	2011	2016
- Kitchen	\$700,000	\$1,000,000
- Auditorium	\$650,000	\$950,000
- Nurse/Guidance/Office	<u>\$350,000</u>	<u>\$950,000</u>
Subtotal	\$1,700,000	\$2,900,000

- Would need to re-work HVAC, sprinklers, lighting and ceilings

What are Total Project Costs?

	Cost	MSBA Share
• HVAC & Related Components	\$10,100,000	\$4,040,000
• Roofing & Building Repairs	\$3,300,000	\$1,320,000
• Building Code/ ADA Requirements	\$3,650,000	\$1,460,000
• Other Electrical/Tech Upgrades	\$1,800,000	\$650,000
• Interior Finishes and Renovations	\$2,310,000	\$850,000
• Kitchen Upgrades	\$700,000	\$280,000
• Auditorium Light & Sound Upgrades	\$650,000	\$0
• Modular Classrooms & Site Work	\$4,900,000	\$0
TOTAL	\$27,410,000*	\$8,600,000

*Includes all fees, design, testing, contingencies

What are specific project components?

	Cost	MSBA Share
<ul style="list-style-type: none"> • HVAC & Related Components <ul style="list-style-type: none"> -Removal of existing systems as required -New gas service to building and to fuel equipment -Electrical upgrades to support equipment -New structural components to support equipment -New interior components to encase HVAC equipment 	\$10,100,000	\$4,040,000
<ul style="list-style-type: none"> • Roofing & Building Repairs <ul style="list-style-type: none"> -Removal of existing roof & metal edging -New roof, insulation and edging -Repair of exposed concrete columns and projecting slabs -Repair of existing exterior masonry 	\$3,300,000	\$1,320,000

What are specific project components?

	Cost	MSBA Share
<ul style="list-style-type: none"> • Building Code/ ADA Requirements <ul style="list-style-type: none"> -New fire protection sprinkler systems -Seismic & snow load related structural upgrades -Relocation of door openings, toilet partitions, and stair upgrades -Elevator upgrade -Construction of new ADA compliant toilets 	\$3,650,000	\$1,460,000
<ul style="list-style-type: none"> • Other Electrical/Tech Upgrades <ul style="list-style-type: none"> -New electric generator -Upgrade school's electrical distribution system -Install electrical/technology infrastructure to support educational and communication needs 	\$1,800,000	\$650,000

What are specific project components?

	Cost	MSBA Share
<ul style="list-style-type: none"> • Interior Finishes and Renovations <ul style="list-style-type: none"> -Demolition of interior spaces as needed -Repair and replacement of damaged interior components and finishes -New acoustical absorption materials in classrooms -Renovation of guidance, nurse, and administration spaces -Renovation of existing fan rooms throughout building into classroom and/or storage spaces 	\$2,310,000	\$850,000
<ul style="list-style-type: none"> • Kitchen Upgrades <ul style="list-style-type: none"> -Removal of existing floors, partitions, and equipment -New partitions, walls, floor and wall finishes, electrical & plumbing -New kitchen equipment 	\$700,000	\$280,000

What are specific project components?

	Cost	MSBA Share
<ul style="list-style-type: none"> • Auditorium Light & Sound Upgrades <ul style="list-style-type: none"> -New catwalk construction -Platform lighting and sound equipment -New light and sound boards 	\$650,000	\$0
<ul style="list-style-type: none"> • Modular Classrooms & Site Work <ul style="list-style-type: none"> -Modular* lease, installation, and removal -Associated site repair costs for addition and removal of modulars <p>* Modular costs per unit: 32 modular units @ approximately \$115,000</p>	\$4,900,000	\$0

What about fields and technology hardware?

- Estimated cost to renovate ball fields: \$1.2 million
- Estimated cost to purchase technology hardware for classrooms: \$0.2 million

These components are not recommended for inclusion in this project.

What is Needham's share?

Total Project Cost:	\$27,412,128
Less MSBA Reimbursement:	\$8,598,927
Town of Needham Cost:	\$18,813,201

Newman: A valuable community asset

- Home to over 760 students, Pre K-5
- Newman campus houses the Needham Historical Society
- Newman houses the District's Science Center
- Newman is home to the District's Preschool
- Newman gym, fields, and tennis courts are for community use
- Newman provides space for the Extended Day program and Park & Rec.
- Newman's auditorium provides the only venue in the community for:
 - High School musicals
 - Town Meeting
 - Community Theatre
 - District staff and community meetings
 - Large School gatherings

The proposed repair and renovation of the Newman Elementary School is necessary, appropriate, and will extend the useful life of the building for generations to come.

What are Next Steps?

- October 6 - School Committee votes override request
- October 13 - Selectmen vote override request
- November 2- STM Appropriates Funds
- December 8 - Special Election/ Ballot Vote
- August 2010 - Construction out to bid
- June 2011 - Construction begins
- September 2011 - Newman students relocated
- September 2012 - Newman re-opens
- January 2013 - Contingent re-opening of Newman

Where can I get more information?

The Needham Public Schools website has a page devoted to the proposed Newman project:

http://rwd1.needham.k12.ma.us/newman_renovation_updates/